

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS**

DYNAMIC APPLE
TECHNOLOGIES, LLC,

Plaintiff,

v.

BELK, INC. and BELK ECOMMERCE
LLC,

Defendants.

Civil Action No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Dynamic Applet Technologies, LLC (“DYNAMIC” or “Plaintiff”), for its Complaint against Defendants Belk, Inc. and Belk eCommerce LLC (collectively referred to herein as “Belk” or “Defendants”), alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

THE PARTIES

2. Plaintiff DYNAMIC is a limited liability company organized under the laws of the State of Texas with a place of business at 17440 N Dallas Parkway, Suite 230, Dallas, Texas 75287. DYNAMIC is wholly-owned subsidiary of Parallel Networks, LLC, a Texas limited liability company (“PARALLEL”).

3. Upon information and belief, Belk, Inc. is a corporation organized and existing under the laws of Delaware, with a place of business at 2801 W Tyvola Road, Charlotte, NC 28217. Upon information and belief, Belk, Inc. sells and offers to sell products and services throughout

the United States, including in this judicial district, and introduces products and services that perform infringing processes into the stream of commerce knowing that they would be sold in this judicial district and elsewhere in the United States.

4. Upon information and belief, Belk eCommerce LLC is a corporation organized and existing under the laws of North Carolina, with a place of business at 2801 W Tyvola Road, Charlotte, NC 28217. Upon information and belief, Belk eCommerce LLC sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that perform infringing processes into the stream of commerce knowing that they would be sold in this judicial district and elsewhere in the United States. Upon information and belief, Defendant Belk eCommerce LLC is a wholly-owned subsidiary of Defendant Belk, Inc.

JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

6. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

7. Venue is proper in this judicial district under 28 U.S.C. § 1400(b).

8. This Court has personal jurisdiction over the Defendants under the laws of the State of Texas, due at least to their substantial business in Texas and in this judicial district, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in the State of Texas. Further, venue is proper in this district because Defendants have a regular and established place of business in this district. For instance, Defendants have multiple store locations in this judicial district. For example, Defendants have a store location at Belk

Mckinney TX, 2750 S Central Expressway, Mckinney, TX 75070-2779. *See, e.g.*,
<http://www.belk.com/store/?StoreID=336>.

BACKGROUND

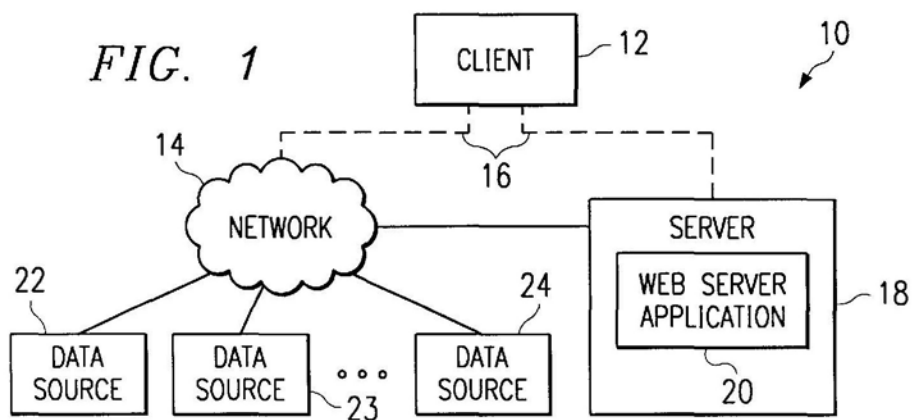
The Invention

9. Keith A. Lowery is the inventor of the U.S. Patent No. 6,446,111 (“the ‘111 Patent”). The ‘111 Patent resulted from the pioneering research of Mr. Lowery in the area of website scalability and how websites could more efficiently and quickly process very large volumes of website visitor requests for web pages. Mr. Lowery’s research resulted in the development of a method and apparatus for client-server communication involving a dynamically generated, transient applet in the late-1990s. At the time of Mr. Lowery’s research, the most widely implemented website technology used to process requests for web pages was client-server architecture. In that type of system, when website visitors’ requests for web pages were received, websites would process those requests on the website’s page servers and then return the requested web page to the client. Mr. Lowery conceived of the inventions claimed in the ‘111 Patent as a way to off-load the processing of requests for web pages from the website’s page servers to the client’s computers through the use of dynamically generated applets.

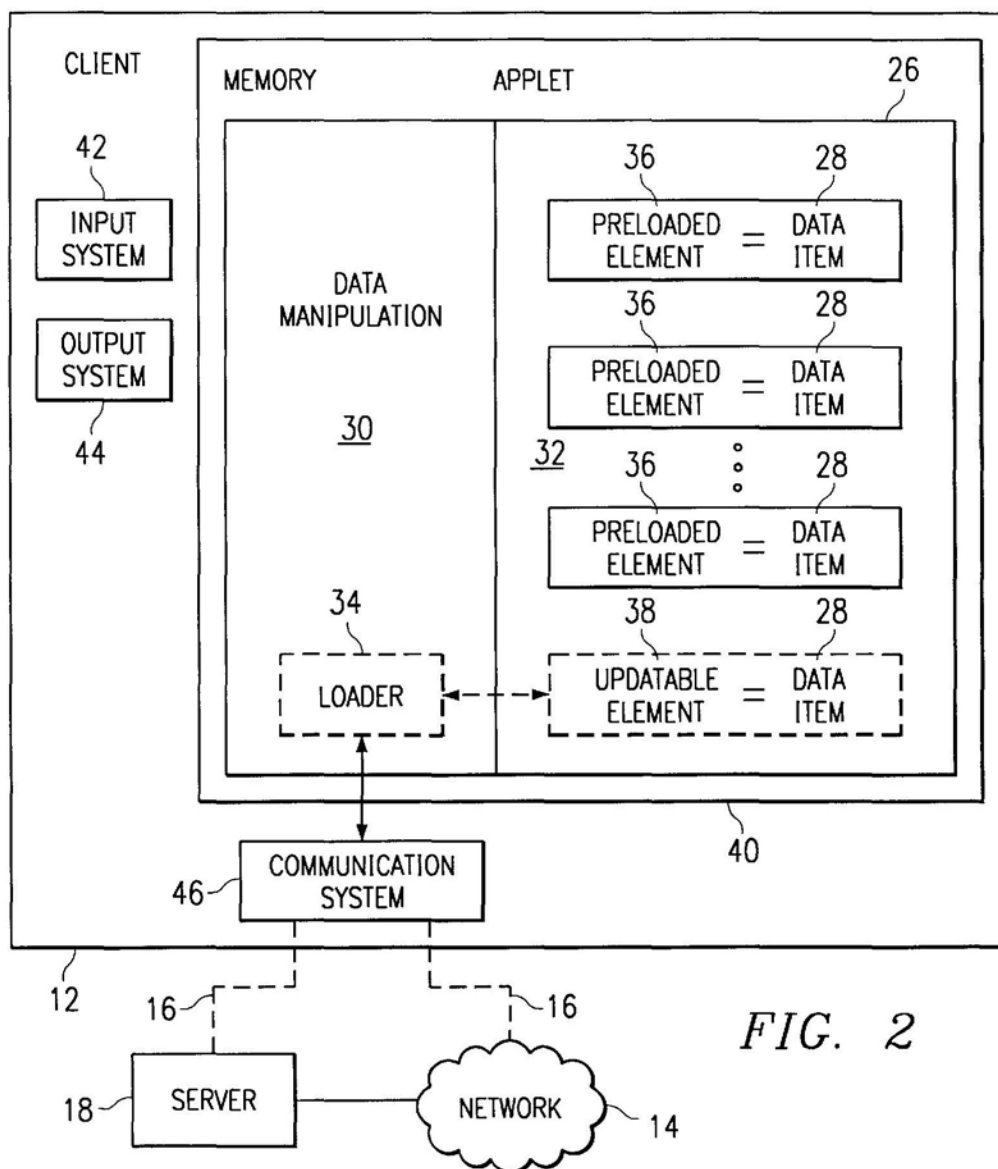
10. For example, Mr. Lowery developed a method of processing data comprising, receiving a data request from a client device at a server system over a communications link; collecting on the server a plurality of data items in response to the data request; generating an executable applet dynamically in response to the data request, a constituent system associated with the applet including a subset of the data items therein as pre-loaded values; wherein a further constituent system associated with the executable applet comprises a data interface capability configured to provide a plurality of operations on the pre-loaded values, the operations

comprising operations associated with the subset of the data items; and transferring the applet to the client device.

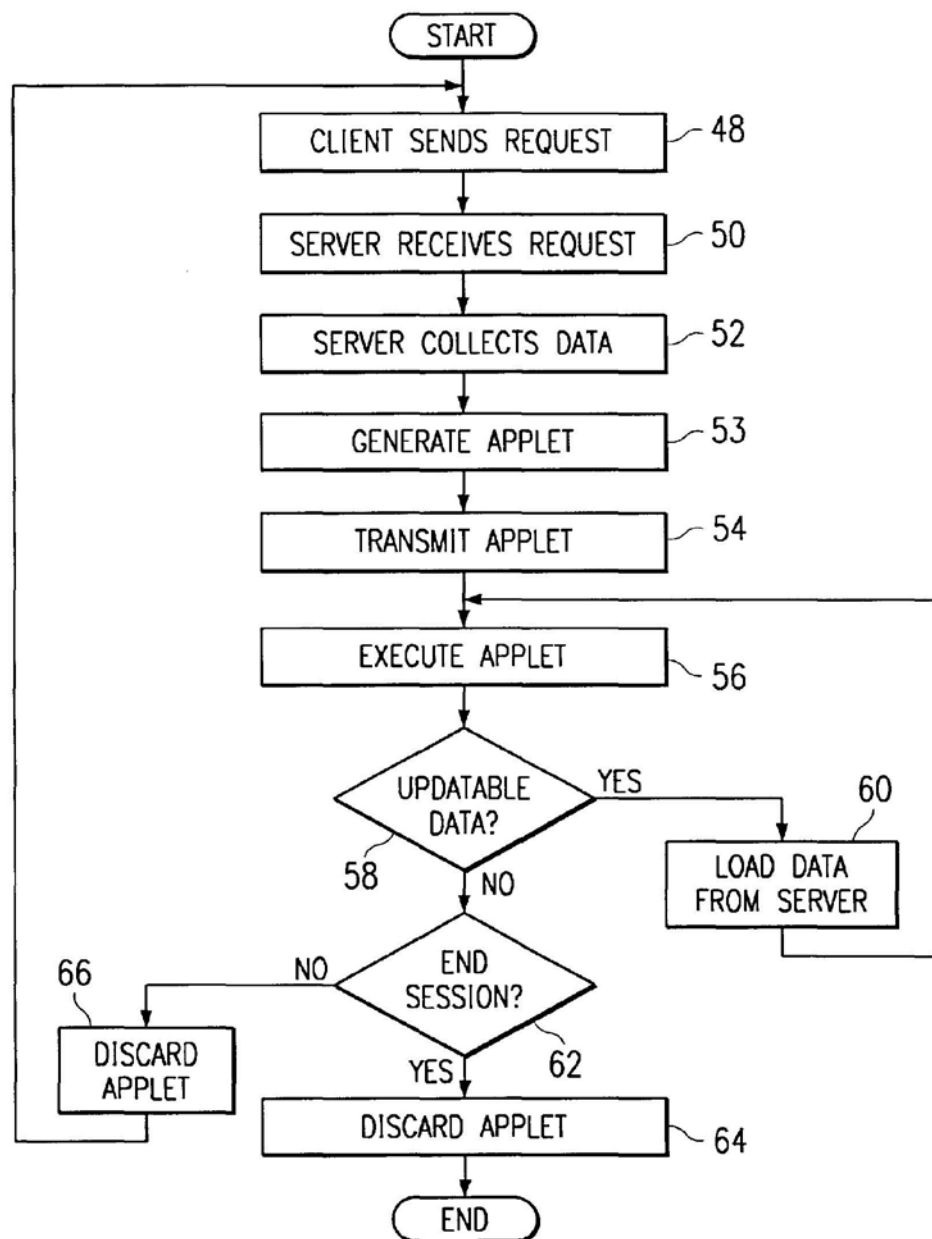
11. Figure 1 (FIG. 1) of the '111 Patent set forth below, is a block diagram of a client-server system which illustrates the methods claimed in the '111 Patent.



12. Figure 2 (FIG. 2) of the '111 Patent set forth below, is a block diagram showing further details of a client-server system constructed to perform the methods claimed in the '111 Patent.



13. Figure 3 (FIG. 3) of the '111 Patent set forth below, is a flow chart which illustrates the operation of a client-server system constructed to perform the methods claimed in the '111 Patent.

FIG. 3**Advantage Over the Prior Art**

14. The patented invention disclosed in the '111 Patent, provides many advantages over the prior art, and in particular improved the operations of computers and computer networks. See '111 Patent at col. 2, ll. 55 – col. 3, ll. 22. One advantage of the patented invention

is that it allows for the decrease of the total amount of data transferred between a client and a server thus allowing for increased speed and efficiency. *See* '111 Patent at col. 3, ll. 11-17.

15. Another advantage of the patented invention is that it allows the client using a computing device that has limited storage capabilities to initiate and complete the transaction without having to load and store a variety of support programs that may be required by the server. *See* '111 Patent at col. 2, ll. 67 – col. 3, ll. 5.

16. Another advantage of the patented invention is that resources of the client device can be freed by discarding the applet after the transaction. *See* '111 Patent at col. 3, ll. 6-10.

17. Yet another advantage of the patented invention is the efficiency created by the avoidance of transmitting duplicate data. *See* '111 Patent at col. 3, ll. 17-23.

18. Because of these significant advantages that can be achieved through the use of the patented invention, DYNAMIC believes that the '111 Patent is widely implemented. Indeed, the patented invention can be used for a variety of websites in many diverse businesses, including movie, clothing, automobiles, and general and specialty retailers along with entities providing services such as banking, auction, design, travel, and entertainment services.

Technological Innovation

19. The patented invention disclosed in the '111 Patent resolves technical problems related to the transmission of information between a server and client, particularly problems related to the utilization of web page software on client devices connected to web servers. As the '111 Patent explains, one of the limitations of the prior art as regards the transmission of information was that many applications required multiple, data-intensive transfers of information between the server and the client device. *See* '111 patent, cols. 1-2.

20. The claims of the '111 Patent do not merely recite the performance of some well-known business practice from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the '111 Patent recite inventive concepts that are deeply rooted in computer technology, and overcome problems specifically arising out of how to more quickly and efficiently scale websites to handle very large volumes of requests for web pages through the creation and implementation of dynamically generated applets.

21. In addition, the claims of the '111 Patent recite inventive concepts that improve the functioning of software applications on client devices, particularly web pages running on web servers the contents of which are accessed by a request from a client device.

22. Moreover, the claims of the '111 Patent recite inventive concepts that are not merely routine or conventional use of networking techniques. Instead, the patented invention disclosed in the '111 Patent provides a new and novel solution to specific problems related to improving the transmission of information over computer networks in view of the constraints of the transmission network.

23. And finally, the patented invention disclosed in the '111 Patent does not preempt all the ways that applets may be used to improve the transmission of web page information, nor does the '111 Patent preempt any other well-known or prior art technology.

24. Accordingly, the claims in the '111 Patent recite a combination of elements sufficient to ensure that the claim in substance and in practice amounts to significantly more than a patent-ineligible abstract idea.

Prior Litigation

25. The '111 Patent was previously litigated in this District (6-09-cv-00154; 6-10-cv-00111; 6-10-cv-00112; 6-10-cv-00275; 6-10-cv-00474; 6-10-cv-00491; 6-10-cv-00506; 6-11-cv-

00098; 6-11-cv-00422; 6-11-cv-00631; 6-12-cv-00018; 6-12-cv-00374) and appeals to the Federal Circuit Court of Appeals (2012-1227; 2015-1681; 2016-1944) (collectively “Prior Litigation”).

26. The scope and construction of the claims of the ’111 Patent have been clarified by the Prior Litigation.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 6,446,111

27. The allegations set forth in the foregoing paragraphs 1 through 26 are incorporated into this First Claim for Relief.

28. On September 3, 2002, the ’111 Patent was duly and legally issued by the United States Patent and Trademark Office under the title “Method and apparatus for client-server communication using a limited capability client over a low-speed communications link[.]” A true and correct copy of the ’111 Patent is attached as Exhibit A.

29. DYNAMIC is the assignee and owner of the right, title and interest in and to the ’111 Patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

30. Upon information and belief, each Defendant has and continues to directly infringe one or more claims of the ’111 Patent by making, using, and/or providing and causing to be used products, specifically one or more web pages that utilized executable applets, which by way of example include <http://www.belk.com/> (the “Accused Instrumentalities”).

31. Upon information and belief, each Defendant has directly infringed at least claim 17 of the ’111 Patent by making, using, and/or providing and causing to be used one or more computers or servers that transmit information utilizing one or more executable applets. Collectively, the computers or servers are referred to herein as the “Accused Instrumentality”.

32. Upon information and belief, the Accused Instrumentality performs a method for processing data.

33. Upon information and belief, the Accused Instrumentality includes a website such as 'http://www.belk.com/' that is hosted on a server that is coupled to a communications link (e.g., the Internet) and is operable to receive a request from a client device (e.g., a computer) accessing the website.

34. Upon information and belief, the server collects a plurality of data items, *e.g.*, data necessary to generate a web page including data necessary to respond to the specific client request. One non-limiting example of a plurality of data items collected as a function of the request is the information collected in response to the client's request for the web page 'http://www.belk.com/p/true-craft-ankle-release-hem-low-rise-jeans/1803822HJ0844U4.html?dwvar_1803822HJ0844U4_color=650297067635#start=1'. This specific information includes data items such as 'Ankle Release Hem Low Rise Jeans', 'TRUE CRAFT', 'Rose Daw', etc. referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1).

35. Upon information and belief, an executable applet is dynamically generated in specific response to the request, *e.g.*, by selecting data responsive to the request. For example, one or more applets are returned by the Accused Instrumentality (that can include existing code and prewritten procedures) that are suitable for execution on the client. One non-limiting example of an executable applet is the program code that can be used by a client device, which is JSON code, referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1) which is constructed at the server by combining the requisite functionality with the necessary data at the time of and in response to the client request. The requisite functionality is present in the form of

attributes such as 'product_name', 'product_brand' and 'product_color' (Belk Exhibit 1: line #26 - line #484) corresponding to the data items present in the program code referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1). The functionality provided by the JSON is providing the client device with the ability to read, write, and/or modify the data associated in the attributes. See the limitations discussed below. The JSON code can be requested both in a web browser and outside a web browser using command line software and can execute on the client device (*see, e.g.*, Belk Exhibit 2).

36. Upon information and belief, the one or more applets returned by the Accused Instrumentality have an associated constituent system comprising a subset of data items which is included in the response to the client request as data retrieved as a function of the request. One non-limiting example is the subset of data items such as 'Ankle Release Hem Low Rise Jeans', 'TRUE CRAFT', 'Rose Daw', etc. referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1), that is incorporated and utilized by the program code for further operations. At least one data item in the applet is a preloaded value. One non-limiting example is the subset of data items such as 'Ankle Release Hem Low Rise Jeans', 'TRUE CRAFT', 'Rose Daw', etc. referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1).

37. Upon information and belief, the Accused Instrumentality has a further constituent system associated with the applet having a data interface capability configured as required by this claim element. The program code referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1) comprises attributes such as 'product_name', 'product_brand' and 'product_color' (Belk Exhibit 1: line #26 - line #484) that provide data interface capability by allowing the client to access and use data such as 'Ankle Release Hem Low Rise Jeans', 'TRUE CRAFT', 'Rose Daw', etc. referenced from line #26 - line #484 in Belk's Source Code (Belk

Exhibit 1). Furthermore, the program code is configured to provide a plurality of operations on the preloaded values because it allows the client device to read, write and/or modify the data referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1).

38. Upon information and belief, the program code provides operations associated with the subset of the data items because it allows the client device to read, write, and/or modify the data in the attributes in the dynamic program code referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1).

39. Upon information and belief, the applet is operable to be transferred to the client device. The above identified code in Belk's Source Code (Belk Exhibit 1) is to be sent by the server over the Internet and received by the client device. One non-limiting example is executable program code dynamically constructed at the server which can be referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1), that is transferred in a single transmission over a communications link to the client device.

40. The Accused Instrumentality infringed and continues to infringe claim 17 of the '111 Patent during the pendency of the '111 Patent.

41. Claim 22 of the '111 Patent recites a method of processing data according to claim 17, wherein the communications link comprises a wireless link.

42. Upon information and belief, the above requested web page may be accessed using a wireless communication link, namely "Wi-Fi", which is commonly used to provide wireless communication at home and business locations to provide access to the Internet and, therefore, the Accused Instrumentality. Similarly, the Accused Instrumentality is accessible using other wireless communication links, such as cellular phone networks like "Edge", "3G", and "WiMAX" operated by numerous well-known service providers.

43. The Accused Instrumentality infringed and continues to infringe claim 22 of the '111 Patent during the pendency of the '111 Patent.

44. Claim 23 of the '111 Patent recites a method of processing data according to claim 17 and further comprising manipulating the pre-loaded values using a plurality of operations in the further constituent system associated with the applet, the operations comprising operations specific to the pre-loaded values and wherein the pre-loaded values are non-updateable.

45. Upon information and belief, the Accused Instrumentality has a capability that further comprises substantially all functionality required by the pre-loaded values. One or more of the executable applets included in the web page includes a data interface capability providing operations to alter the preloaded values to substantially all of their possible states.

46. Upon information and belief, the Accused Instrumentality has a further constituent system associated with the applet having a data interface capability configured as required by this claim element. The program code referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1) comprises attributes such as 'product_name', 'product_brand' and 'product_color' (Belk Exhibit 1: line #26 - line #484) that provide data interface capability by allowing the client to access and use data such as 'Ankle Release Hem Low Rise Jeans', 'TRUE CRAFT', 'Rose Daw', etc. referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1). Furthermore, the program code is configured to provide a plurality of operations on the preloaded values because it allows the client device to read, write and/or modify the data referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1). These pre-loaded values are non-updateable.

47. The Accused Instrumentality infringed and continues to infringe claim 23 of the '111 Patent during the pendency of the '111 Patent.

48. Claim 26 of the '111 Patent recites a method according to claim 17, wherein the pre-loaded values are non-updateable.

49. Upon information and belief, the one or more of the executable applets includes pre-loaded values which are non-updateable. One non-limiting example is the subset of data items such as 'Ankle Release Hem Low Rise Jeans', 'TRUE CRAFT', 'Rose Daw', etc. referenced from line #26 - line #484 in Belk's Source Code (Belk Exhibit 1).

50. The Accused Instrumentality infringed and continues to infringe claim 26 of the '111 Patent during the pendency of the '111 Patent.

51. Upon information and belief, since at least the time of receiving this Complaint, each Defendant has induced and continues to induce others to infringe at least claims 17, 22, 23, and 26 of the '111 Patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Beretta's partners and customers, whose use of the Accused Instrumentalities constitutes direct infringement of at least claims 17, 22, 23, and 26 of the '111 Patent.

52. In particular, each Defendant's actions that aid and abet others such as their partners and customers to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, each Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because each Defendant has had actual knowledge of the '111 Patent and that its

acts were inducing infringement of the '111 Patent since at least the time of receiving this Complaint.

53. On information and belief, each Defendant's infringement has been and continues to be willful.

54. DYNAMIC has been harmed by each Defendant's infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, DYNAMIC demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff DYNAMIC demands judgment for itself and against Defendants as follows:

- A. An adjudication that each Defendant has infringed the '111 Patent;
- B. An award of damages to be paid by Belk adequate to compensate DYNAMIC for Belk's past infringement of the '111 Patent, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and
- D. An award to DYNAMIC of such further relief at law or in equity as the Court deems just and proper.

Dated: December 20, 2017

DEVLIN LAW FIRM LLC

/s/ Robert Kiddie

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